AMENDMENTS TO THE ABSTRACT:

Please replace the Abstract with the following amended abstract:

ABSTRACT

It is disclosed a method of determining the exposure temperature of Al and Cr of a γ/γ'

MCrAlY-coating after the use in a high temperature environment, the γ/γ' MCrAlY-coating

(6) exhibiting a non-equilibrium γ/γ' -microstructure at a temperature lower than the

temperature during operation and the depletion of chromium from the γ/γ' -MCrAlY-coating

(6) still allows the α -Cr phase to form. The coating conductivity and permeability by means

of a multifrequency eddy current system is measured at different locations of the component

and from the measured conductivity and permeability the exposure temperature of said different

locations of the components is determined.

(Fig. 1)